Amendments to the Specification:

Please amend the paragraph starting at page 1, line 6 to read as follows:

The instant nonprovisional patent application claims priority from the following three provisional patent applications, each filed March 10, 2000 and incorporated herein by reference: U.S. provisional patent application no. 60/188,565; U.S. provisional patent application no. 60/188,590; and U.S. provisional patent application no. 60/188,591. The following nonprovisional patent applications are hereby incorporated by reference: U.S. nonprovisional patent application no. [[____________]] 09/802,519 (Atty. Docket No. 18564I-007810; and U.S. nonprovisional patent application no. [[____________]] 09/802,377 (Atty. Docket No. 18564I-008010.)

Please amend the paragraph starting at page 2, line 32 to read as follows:

Techniques and devices for maintaining process control in complex processes are well known. Such techniques often require monitoring individual parameters such as temperature, pressure, flow, incoming fluid characteristics, and the like. Most of these techniques only monitor and adjust a single parameter. The single parameter is often monitored and displayed to an operator or user of the process through an electronic display. For example, refining a petroleum product such as oil or gas often uses temperature measurements of raw or in process fluids such as oil using thermocouples. These thermocouples are often attached to critical processes such as distillation and the like and then coupled to an electronic display for output. The display generally outputs signals corresponding to temperature in a graphical user interface form or numerical value in Celsius, for example. In the most primitive oil refining operations, for example, operators still monitor temperature of a process or processes using the display by visual means. If the temperature goes out of range, the operator merely adjusts the process. In more advanced applications, process controllers monitor and control temperature of processes. The process controllers often use proportional control, derivative control, integral control, or a combination of these to provide an optimum control of temperature for the process. These techniques, however, still only monitor [[in]] a single parameter such as temperature and adjust such temperature by feedback control means.

Please amend the paragraph starting at page 5, line 9 to read as follows:

An embodiment of a system for controlling a process comprises a first field mounted device in communication with a process and configured to produce a first input. A process manager receives the first input and is configured to apply a first model to the first input to identify a first predicted descriptor characteristic of a state of the process. The process manager is also configured to consult a first knowledge based system to provide an output based upon the first predicted descriptor.

Please amend the paragraph starting at page 18, line 11 to read as follows:

As shown in Fig. 3B, the top view diagram includes an array of sensors, 351A, 351B, 301C, 359nth. The array is arranged in rows 351, 352, 355, 357, 359 and columns, which are normal to each other. Each of the sensors has an exposed surface for capturing, for example, olfactory information from fluids, e.g., liquid and/or vapor. The diagram shown is merely an example of an information capturing device. Details of such information capturing device are provided in U.S. Application No. 09/518,179, which is now U.S. No. [[______________]] 6,422,061 (Attorney Docket No. 18564I-003810), commonly assigned, and hereby incorporated by reference for all purposes. Other devices can be made by companies such as Aromascan (now Osmetech), Hewlett Packard, Alpha-MOS, or other companies.

Please amend the paragraph starting at page 24, line 31 to read as follows:

Optionally, the filtered responses can be displayed, step [[415]] (415). Here, the present method performs more than one of the filtering techniques to determine which one provides better results. By way of the present method, it is possible to view the detail of data preprocessing. The method displays outputs (step 415) for each of the sensors, where signal to noise levels can be visually examined. Alternatively, analytical techniques can be used to determine which of the filters worked best. Each of the filters are used on the data, step 416 via branch 418. Once the desired filter has been selected, the present method goes to the next step.

Please amend the paragraph starting at page 29, line 27 to read as follows:

The above sequence of steps is merely an example of a way to teach or train the present method and system according to an alternative embodiment. The present example takes more than one different substance, where each substance has a plurality of characteristics, which are capable of being detected by sensors or other sensing devices. Each of these characteristics are measured, and then fed into the present method to create a training set. The method includes a variety of data processing techniques to provide the training set. Depending upon the embodiment, some of the steps may be separated even further or combined. Details of these steps are provided below according to the Figs.

Please amend the paragraph starting at page 35, line 13 to read as follows:

The above sequence of steps is merely illustrative. The steps can be performed using computer software or hardware or a combination of hardware and software. Any of the above steps can also be separated or be combined, depending upon the embodiment. In some cases, the steps can also be changed in order without limiting the scope of the invention claimed herein. One of ordinary skill in the art would recognize many other variations, modifications, and alternatives. An example according to the present invention is described in U.S. Serial No. [[____________________]] 09/802,513 (Attorney Docket No. 18564I-008510US), which is incorporated by reference for all purposes.